Product datasheet

Specifications



Photoelectric sensors XU, photo electric sensor, XUK, diffuse, Sn 5 m 1Q auto PNP/NPN 1Qa 0...10 V

XUK8TAE1MM12

Main

Range of product	Telemecanique Photoelectric sensors XU
Series name	Application assembly Application material handling
Electronic sensor type	Photo-electric sensor
Sensor name	XUK
Sensor design	Compact 50 x 50
Detection system	Diffuse with background suppression
Material	Plastic
Type of output signal	Analogue + discrete
Wiring technique	5-wire
Discrete output type	IOLINK PNP or NPN
Discrete output function	1 NO or 1 NC programmable
Analogue output range	0...10 V
Electrical connection	1 male connector M12, 5 pins
Product specific application	Distance measurement on object
Emission	Red laser diffuse distance sensor class 1 conforming to IEC 60825-1
[Sn] nominal sensing distance	5 m diffuse distance sensor

Complementary

Enclosure material	ABS/PC
Lens material	PMMA
Maximum sensing distance	5 m diffuse distance sensor
Output type	Analog Solid state
Add on input	External teach
Status LED	1 LED (yellow) for output state 1 LED (green/yellow) for supply on/output state
[Us] rated supply voltage	24 V DC with reverse polarity protection
Supply voltage limits	18…30 V DC
Switching capacity in mA	<= 100 mA (overload and short-circuit protection)

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Switching frequency	<= 500 Hz
Maximum voltage drop	<2 V
Current consumption	<= 60 mA no-load
Maximum delay first up	300 ms
Maximum delay response	1.2 ms
Maximum delay recovery	1.2 ms
Setting-up	Using teach button or remote teaching
Depth	50 mm
Height	50 mm
Width	23 mm
Net weight	0.035 kg

Environment

Product certifications	CE cULus Ecolab
Ambient air temperature for operation	-20…50 °C, UL certified -40…60 °C
Ambient air temperature for storage	-40…80 °C
Vibration resistance	7 gn, amplitude = +/- 1.5 mm (f = 10…55 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn (duration = 11 ms) conforming to IEC 60068-2-27
IP degree of protection	IP67 conforming to IEC 60529 IP69K conforming to IEC 60529 IP69K conforming to DIN 40050

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	56.0 g
Package 1 Height	2.8 cm
Package 1 width	9 cm
Package 1 Length	6 cm
Unit Type of Package 2	S01
Number of Units in Package 2	28
Package 2 Weight	1.752 kg
Package 2 Height	15 cm
Package 2 width	15 cm
Package 2 Length	40 cm

Offer Sustainability

REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes

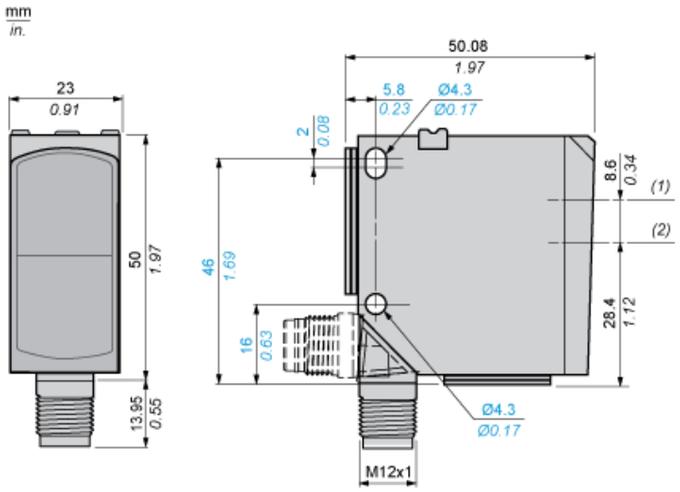
Contractual warranty

Warranty	18 months

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Dimensions Drawings

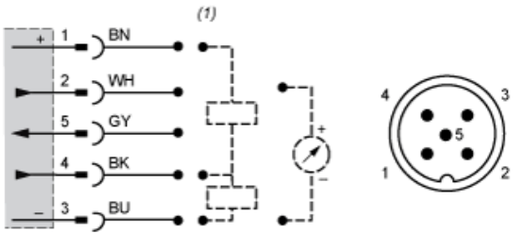
Dimensions



(1) Transmitter optical axis
(2) Receiver optical axis

Connections and Schema

Connector Wiring



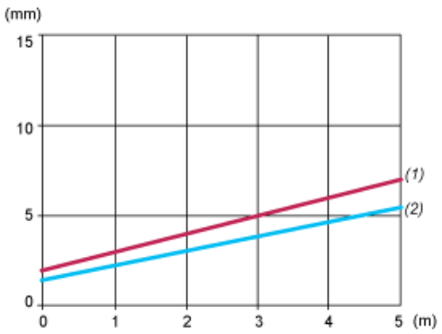
(1) Auto-detect
1 : + UB (BN: Brown)
2 : QA (WH: White)
3 : -UB (BU: Blue)
4 : Q (BK: Black)
5 : IN (GY: Grey)

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Performance Curves

Curves

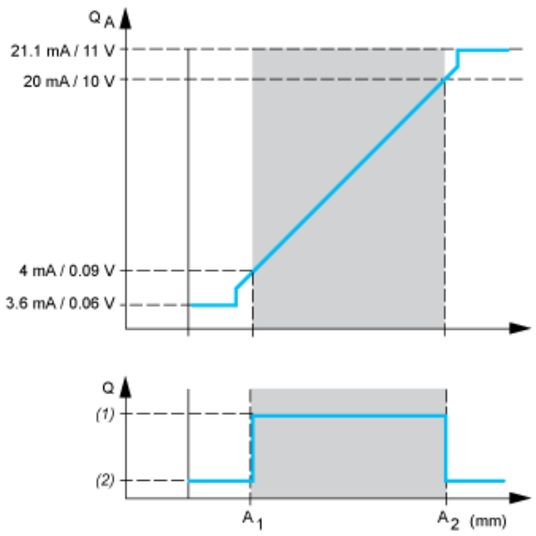
Size of light spot (typical)



(1) Vertical (y)
(2) Horizontal (x)
0…15 mm : Size
0…5 m : Distance

Curves

Output characteristic curve

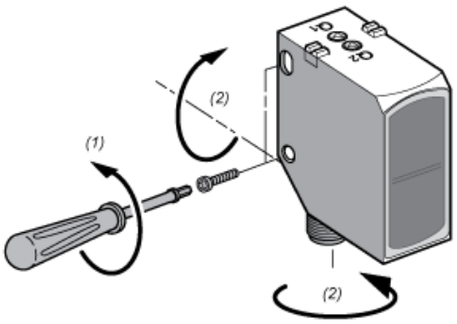


QA : Analogue output
Q : Switching output
(1) High
(2) Low

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Mounting and Clearance

Mounting



(1) < 1,5 Nm (13 lb-in)
(2) < 1 Nm (8.85 lb-in)